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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,530

09/22/2005

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EXAMINER

CHENG, ICHIEH

ART UNIT

PAPER NUMBER

4183

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,530	Applicant(s) IIDA ET AL.	
	Examiner ICHIEH CHENG	Art Unit 4183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/22/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/22/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "... matching the transfer rate for the data to be transferred to the radio base station apparatus 300 to the rate of the data output from the RLC processing section 503," (Specification: Page 20, lines 10-13) does not reasonably provide enablement for "... matching the transfer rate at said transfer section (Fig 6, label 501) to the transfer rate at said control section (Fig 6, label 503)." The specification does not enable any person skilled in the art to which it pertains, or

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with which it is most nearly connected, to make the invention commensurate in scope with these claims. Claim 5 recites in line 6: “a control section that performs retransmission control of data based on a selective retransmission type retransmission control protocol.” This is interpreted to mean that the control section’s rate is based only upon retransmission. In addition, claim 5 recites in line 8: “wherein said transfer section notifies said control section of said transfer rate so as to match the transfer rate at said transfer section to the transfer rate at said control section.” This is interpreted to require that the control transfer rate, i.e. the retransmission, rate be set equal to, i.e. matched to, the overall transfer rate. The specification teaches “match[ing] the transfer rate for the data to be transferred to the radio base station apparatus 300 to the rate of the data output from the RLC processing section 503.” (Specification: Page 20, lines 10-13). In this case, the RLC does more than handle retransmissions – it processes all data to be sent to the radio base station. Thus, the specification requires that the rate of the RLC, which includes the rate of transmissions and normal data, be matched to the overall transfer rate.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites “a transfer section that transfers data to said radio base station apparatus according to claim 1 at a transfer rate determined by said radio base station

apparatus.” The claim language seems to refer to a method in claim 1; however, claim 1 is directed to an apparatus.

In addition, it is unclear whether “match” requires the two rates to be identical or whether “match” only requires an approximate equality of the rates. The examiner notes that if “match” does not require exact equality, then applicant is required to specifically define the degree of equality that is required to constitute a “match.”

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 1, 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Kakuma et al. (5070498).

9. As to claim 1, the applicant's admitted prior art discloses a radio base station apparatus comprising: a storage section (Fig 1, label 34) that temporarily stores data transferred from a radio network control apparatus at a transfer rate; a transmission

section (Fig 1, label 31) that transmits the data stored in said storage section to a mobile terminal (Fig 1, label 1) apparatus by radio; a wait time measuring section that measures a wait time of the data in said storage section (Page 5, lines 14-24)

The applicant's admitted prior art does not disclose a determining section that determines a transferred rate of data transferred from a radio network control apparatus; and a transmission rate calculation section that calculates an average transmission rate of data transmitted to said mobile terminal apparatus by radio, wherein said determining section uses a value obtained by multiplying said average transmission rate a coefficient according to said wait time as said transfer rate.

However, Kakuma et al. disclose a determining section that determines a transferred rate of data transferred from an input line (column 6, line 38- column 7, line 33; claim 15); and a transmission rate calculation section that calculates an average transmission rate of data transmitted to a terminal, wherein said determining section uses a value obtained by multiplying said average transmission rate a coefficient according to said wait time as said transfer rate (column 6, line 38- column 7, line 33; claim 15) to improve the flow control of a system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to include a determining section and a transmission rate calculation section to improve the flow control of a system.

As to claim 2, the applicant's admitted prior art discloses a data amount measuring section that measures the amount of data stored in said storage section, wherein said wait time measuring section regards a value obtained by dividing the

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amount of data measured by said data amount measuring section by the transmission rate calculated by said transmission rate calculation section as said wait time (Page 5, lines 14-24).

As to claim 6, the applicant's admitted prior art disclose temporarily storing data transferred from a radio network control apparatus at a transfer rate in a buffer (Page 3, lines 6- 22); and sending the data stored in said buffer to a mobile terminal apparatus by radio (Page 3, lines 6-22).

The applicant's admitted prior art does not explicitly disclose determining a transfer rate of data transferred from a radio network control apparatus; wherein a value obtained by multiplying an average transmission rate of data sent to said mobile terminal apparatus by radio by a coefficient according to a wait time of data in said buffer is regarded as a transfer rate of the data transferred from the radio network control apparatus.

However, Kakuma et al. disclose determining a transfer rate of data transferred from an input line (column 6, line 38- column 7, line 33; claim 15); wherein a value obtained by multiplying an average transmission rate of data sent to said mobile terminal apparatus by radio by a coefficient according to a wait time of data in said buffer is regarded as a transfer rate of the data transferred from the radio network control apparatus (column 6, line 38- column 7, line 33; claim 15) to improve the flow control of a system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to include a step which determines a transfer

rate of data transferred from a radio network control apparatus to improve the flow control of a system.

As to claim 7, the applicant's admitted prior art discloses the transfer rate of data transferred from said radio network control apparatus is set to 0 to stop the data transfer when the amount of data stored in said buffer is equal to or greater than a threshold (Page 4, line 4 - Page 5, line 3).

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art as applied to claim 1 above in view of Kakuma et al. Kakuma et al. (5070498), and further in view of Parkkinen et al. (US 2003/0206558).

As to claim 3, the applicant's admitted prior art in view of Kakuma et al. discloses a data amount measuring section that measures the amount of data stored in said storage section (Page 5, lines 14-24), but does not explicitly teach wherein said transmission rate calculation section calculates an actual average transmission rate when the amount of data measured by said data amount measuring section is equal to or greater than a threshold and calculates a virtual average transmission rate when the amount of data measured by said data amount measuring section is less than the threshold.

However, Parkkinen et al. disclose transmission rate calculation section calculates an actual average transmission rate when the amount of data measured by said data amount measuring section is equal to or greater than a threshold and calculates a virtual average transmission rate when the amount of data measured by

said data amount measuring section is less than the threshold (Fig 10, [0066-0070]) to prevent overflow of a storage section and improve flow control of a system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to include a data amount measuring section to prevent overflow of a storage section and improve flow control of a system.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art as applied to claim 1 above in view of Kakuma et al. Kakuma et al. (5070498), and further in view of Schreiber (US 6542550).

As to claim 4, the applicant's admitted prior art in view of Kakuma et al. discloses an adding section that adds time information to data when the data is input to said storage section (Page 5, lines 14-24) but it does not explicitly disclose wherein said wait time measuring section measures said wait time from the time indicated by said time information and the time at which said data is output from said storage section.

However, Schreiber discloses a wait time measuring section measures wait time from the time indicated by time information and time at which data is output from a storage section (column 4, line 61 - column 5, line 38) to control overall delay of a system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to include an adding section to control overall delay of a system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ICHIEH CHENG whose telephone number is (571)270-1941. The examiner can normally be reached on Monday to Thursday 7:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on 571-272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ichieh Cheng/
Examiner, Art Unit 4183

2/26/08

IC

/Len Tran/
Supervisory Patent Examiner, Art Unit 4183